

EPSRC Liverpool Centre for Mathematics in Healthcare

Advances in Maths-Healthcare Research Workshop

Thursday 24th January 2019

Room 113, First Floor, 126 Mount Pleasant, University of Liverpool

9.00 – 9.30	Registration	
9.30 – 9.35	Welcome Remarks by Chair of the Board	Professor Sir Munir Pirmohamed
9.35 – 9.40	Welcome and Overview of Liverpool Centre for Mathematics in Healthcare	Professor Ke Chen, Centre Director
THEME 1: Multi-scale Systems in Healthcare Problems		
9.40 – 9.55	Overview	Professor Alexander Movchan, Theme Lead
9.55 – 10.10	Propagation of waves in stented blood vessels	Ms Sara Frecentese
10.10 – 10.20	Modelling drug transport and metabolism in multicellular spheroids	Dr Joseph Leedale (Presented by Dr Rachel Bearon)
10.20 – 10.30	Multi-scale modelling of ocular biomechanical behaviour based on X-ray scattering data	Mr Dong Zhou
10.30 – 10.45	Tea & Coffee Break	
10.45 – 11.25	Constitutive Modelling of Biological Tissues	Guest Speaker: Professor Yibin Fu – Keele University
THEME 2: Imaging and Data Integration		
11.25 – 11.35	Overview	Professor Ke Chen, Theme Lead
11.35 – 11.45	Stent tracking in abdominal aortic aneurysms	Mr Liam Burrows
11.45 – 11.55	Robust similarity measures for multi-modal images registration	Dr Anis Theljani
11.55 – 12.05	Extending multivariate statistical modelling methods for clinical prediction	Dr Sarah Berhane
12.05 – 12.15	Spatial biomarkers of optic disc: toward a data efficient, accurate and fast diagnosis of glaucoma	Dr Gabriella Czanner
12.15 – 13.00	Lunch Break	
13.00 – 13.30	Accurate in-vivo measurement of internal eye pressure for better glaucoma management	Guest Speaker: Dr Riccardo Vinciguerra – Royal Liverpool and Broadgreen University Hospitals NHS Trust
THEME 3: Modelling of Spread and Evolution of Infectious Diseases and Complex Networks		
13.30 – 13.40	Overview	Dr Kieran Sharkey, Theme Lead
13.40 – 13.50	Modelling the evolution of AMR in Shigella	Mr Christopher Overton
13.50 – 14.00	Modelling the dynamics of seasonal flu influenza	Dr Andrea Parisi
14.00 – 14.10	Toxin-mediated competition in weakly motile bacteria	Dr Andrew Dean
14.10 – 14.20	Drivers of antimicrobial resistance (AMR) in Pseudomonas aeruginosa chronic lung infections	Dr Karan Pattni
Tea, Coffee and Networking		

For advisory board members and Professor Ke Chen only

14.20 – 14.50	Closed Advisory Board Meeting
14.50 – 15.20	Advisory Board Feedback Provided to Prof. Ke Chen

